

snap-fit mounting structure joined to said body and adapted for removable snap-fitting of the device onto such a tape-end projection, with the plane of the gripper body substantially paralleling the plane of the tape-end projection, and with said projection elements generally extending toward such a tape.

18. (Amended) The device of claim 17, wherein said mounting structure includes a swing tab that, with the device mounted on such a tape, accommodates swiveling of the device about an axis which is generally normal to the plane of the tape.

REMARKS

In the first Office action herein, the Examiner objected to certain matters relating to the filed informal drawings, objected to several locations in the specification for various technical reasons, objected, on technical grounds, to claims 8 and 18, and rejected all originally-presented claims under 35 U.S.C. § 103(a) on the bases of different combinations of several prior art references, including White, Jr., 5,458,946, Ballou, 1,303,756, Hoffman, 5,894,677, Di Tomasso, 1,542,990, and Blackman et al., 5,600,894.

Applicants have carefully reviewed the specification, claims and drawings in the present application, have also carefully reviewed and considered the Examiner's objections and rejections, as well as the cited and applied prior art patents. By the present amendment, applicants propose certain revisions in the specification to correct technical matters, and certain rewritings in different ones of the claims both to correct technical matters and to focus definition of applicants' inventions in a manner which is believed to

place all claims now presented in this application, on the basis of entry of the present amendment, in conditions for immediate allowance.

With respect to the Examiner's several technical objections to various places in the specification and the originally-filed claims, applicants have addressed these issues directly by proposing specific revisions and in some instances corrections of the typographical errors or omissions, in the respective texts. More specifically, in the specification the description of Fig. 8 has been modified to point out with greater particularity what is shown in that figure. On page 8, a reference to Figs. 1 and 2 has been added to improve clarity of the description found on that page, and on page 9, a phrase inadvertently omitted from the text at the end of line 3 on that page has been inserted. On page 10 a parenthetical statement which relates to revisions in the description of Fig. 8 (mentioned above) has been added for the sake of improved clarity. On page 11, beginning at line 9 a phrase which was typographically incorrectly copied into the file text has been corrected, with this correction taking place in both lines 9 and 10 on this page. At the bottom of page 12, certain text has been added to clarify further what is shown in Figs. 8-10, inclusive. At page 13, line 22, a typographical error has been corrected.

An important distinguishing feature of applicants' invention is the presence of a perimeter structure including at least one elongate linear array of workpiece surface-gripping projection elements (teeth-like) which engage and grip the far surface of a workpiece, one of whose linear dimensions is being measured from that surface. All

claims in the application, as such now read on the basis of amendments proposed by the present document, focus attention on this feature with different degrees of specificity, and from slightly different points of view, and thus focus upon a feature which is neither shown nor suggested by any one of the cited and applied prior art patents. Put another way, there is no single reference that has been cited and applied by the Examiner which is capable of supplying this element of the invention, and which is thus capable, for any reason, of being combined with any one or more other patent(s) to render a supportable rejection based upon obviousness. Thus, no matter how different references are combined as proposed by the Examiner, none of these references can supply this missing feature, and thus no combination, even if permitted against other objections thereto, is capable of suggesting or describing the full cooperative relationship present in applicants' invention.

Probably the two principal references applied in this case are White, Jr. and Ballou. Just looking at these two references, and considering that the Examiner combines these references, in one set of instances, along with the Hoffman reference, to reject a substantial number of applicants' claims, the White, Jr. reference teaches an attachable cup-like retainer which has a deep well intended to capture and receive an end region of an elongate, slender workpiece, such as a piece of molding, during a measuring operation. It includes no perimeter structure including workpiece surface-gripping elements, and indeed the presence of such elements on the perimeter workpiece facing rim in the device could seriously impair its usability by inadvertently and frequently

becoming caught on the end of a workpiece and preventing it from entering, as is necessary, the cup region.

Ballou, which illustrates a tape attachment device having a pair of laterally-spaced washboard-like ridges, rather than perimeter-distributed teeth, would not be incorporatable into the White, Jr. structure to create applicants' claimed invention, and if so incorporated, would introduce a structural problem in the White, Jr. device along the lines just suggested immediately above.

Hoffman does not aid in bringing any combination of references closer to suggesting applicants' invention. No end workpiece surface-gripping device anything like that proposed by applicants is illustrated or discussed in the Hoffman reference.

No other one of the cited and applied references aids in any way in bringing any proposed combination of the references to a condition sufficient to support an obviousness rejection of applicants' claimed invention as such is now set forth in the rewritten and amended claims presented in this document.

For all of these reasons, applicants respectfully submit that all claims now presented in the application are clearly patentably distinguishable over the cited and applied art, and are therefore patentable. Accordingly, favorable reconsideration of these claims, and early allowance of all such claims, are respectfully solicited.

Applicants acknowledge the Examiner's objections to certain technical matters relating to the filed informal drawings, and will specifically prepare formal corrected

drawings, taking the Examiner's comments into full account, on allowance of a claim in this case.

If, after reviewing this amendment, the Examiner concludes that any discussion with applicants' undersigned attorney might aid in progressing this case toward allowance of the claims, the Examiner is cordially invited to call the undersigned attorney at his office in Portland, Oregon at (503) 224-6655.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box FEE AMENDMENT, Commissioner for Patents, Washington, D.C. 20231 on February 26, 2002


Pamela A. Knight

Date of Signature: February 26, 2002



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VERSION SHOWING CHANGES BEING MADE

Please replace the paragraph beginning on page 6, line 7 and ending on line 10, with the following amended paragraph:

Fig. 8 is a fragmentary schematic view stylized to illustrate a performance feature of the device of Figs. 3-7, inclusive, and specifically showing a region (represented at two moved locations by the darkened and dashed-line rectangles) of small-area nearly point-contact gripping that characterizes operation of the device in a manner which will be discussed below (relative to the rotational orientation of the long axis of a tape element).

Please replace the paragraph beginning on page 8, line 10 and ending on line 21, with the following amended paragraph:

Mounted by suitable and conventional attaching structure 56 (see Figs. 1 and 2), adjacent the outer end (the left end in Figs. 1, 2 and 3) of tape element 52, is a right-angular tape end device 58 which includes a downturned lateral projection 58a that generally occupies a plane 60 which is approximately at a right angle relative to the part 58b of this end device which is directly secured to the outer end of the tape element. Plane 60 is generally at a right angle relative to previously-mentioned plane 54. In most conventional measuring tapes of the type now generally being described and illustrated, the end device is permitted a certain amount of back and forth, confined, translational motion, and such is indicated by arrows 62 in Fig. 1. This play in the actual position which the end device assumes relative to the outer end of the tape element accommodates

use of the tape for measuring distances either from an outside or inside surface of workpiece, as is well recognized and understood in the practice of using such tapes.

Please replace the paragraph beginning on page 9, line 1 and ending on line 13, with the following paragraph:

It is to solve the difficulty encountered many times and by many users of such tape measuring devices, involving the propensity of the downturned portion 58a in device 58 to slip away from the far surface of a workpiece whose length, or along whose length, some measurement is being made that the present invention steps in with a resolution. This kind of problem often arises where the person using the tape is making a measurement which is well out of arm's reach of the position of element 58 under conditions with the tape extended so as to make the required measurement. It can come about from a number of instability inducing factors, such as slight translational and/or rotational and/or angular motion that occurs in the tape as the same is being drawn to full extension and positioned properly. The consequence, of course, is that the end slips away frequently, and the measurement cannot be made until the tape is stabilized. Often the only way to stabilize a tape turns out to be to require the presence of another person to hold this outer end of the tape securely in place until the measurement is made.

Please replace the paragraph beginning on page 9, line 14, and ending on page 10, line 3, with the following paragraph:

Looking especially now at Figs. 2-6, inclusive, Fig. 2, wherein there is presented a somewhat ovate/circular dash-double-dot line, helps to illustrate generally the

environmental location and positioning of the preferred embodiment of this invention when it is mounted in place on the outer end of the tape measure, and specifically mounted herein on the downturned lateral extension 58a in end device 58. In this setting, one can see that the device of this invention, in such a position, generally has a perimeter which circumsurrounds the long axis of tape element 52, which long axis is shown at 64 in Figs. 2, 3 and 5. As will become apparent shortly, the specific embodiment of the present invention now being described, when generally in place (as suggested by the dash-double-dot lines in Fig. 2) on the outer end of tape 50, is disposed to be capable of securely gripping (including small-area, nearly point-contact gripping as illustrated by the moved-position rectangles mentioned above in relation to Fig. 8) the far side surface in a workpiece, almost no matter what the modest rotational orientation is of tape element 52.

Please replace the paragraph beginning on page 10, line 8, and ending on line 20, with the following paragraph:

Looking specifically at several structural features of device 66, the same includes a generally planar, circular body, or body expanse, 66a whose perimeter is formed with an angularly disposed, generally continuous, annular rim structure 66b, also referred to as a perimeter structure. Perimeter structure 66b circumsurrounds previously-mentioned tape-element axis 64, and includes a linear/arcuate array, or line[,]-like arrangement, of tooth-like projection elements 66c. Elements 66a are also referred to herein as being arranged in a line-following, long-path array. With device 66 in place, and here referring especially to Fig. 3, one can see that the device is positioned in such a fashion that the

teeth, or projection elements, 66c are aimed inwardly toward tape element 52. Thus, they are appropriately oriented for gripping the far surface of a workpiece that is to be measured using the combination of tape 50 and device 66. Fig. 7 is now referred to as an illustration of this operational/use condition, wherein a measurement procedure is illustrated in relation to workpiece 67.

Please replace the paragraph beginning on page 10, line 21 and ending on page 11, line 11, with the following paragraph:

Formed in any suitable fashion, and generally centrally within, body expanse 66a is a punched-out, elongate ribbon 66d (see particularly Figs. 4, 5 and 6) which has been punched to displace it from the plane of expanse 66a, and in a direction which is toward the direction that teeth 66c point. This ribbon forms, with remaining portions of the body expanse, a channel 66e which is adapted to receive the downturned lateral extension 58a in end device 58 in tape 50. The exact configurations of ribbon 66d and channel 66e (collectively a mounting structure) can take on various selectable shapes and configurations, depending upon the exact structure of the particular kind of tape measure with respect to which the device of this invention is intended to be used. Preferably, this mounting structure is designed in such a fashion that the downturned end of a tape end device, such as lateral extension 58a, with which the device of the invention is to be used, can be appropriately received and positioned in a snap-fit and measurement-ready [receive a component, such as component 58a, in a snap-fit] kind of fashion. Figs. 3 and 7 illustrate such an attached condition for device 66 on tape 50.

Please replace the paragraph beginning on page 12, line 16, and ending on line 22, with the following new paragraph:

Yet another modified form of the invention is one wherein there are two diametrically arranged linear arcs of projecting teeth, which arcs lie along the left and right sides of device 66 as such is pictured in Fig. 5. In particular, the arcs lie between lines 71, 73 [68, 70] which span the angle illustrated at α in Fig. 5. In this kind of arrangement, the projecting teeth are arranged in a kind of butterfly manner as such is pictured in Fig. 5. Such teeth are disposed, with the device in place on a measuring tape, on laterally opposite sides, or edges, of tape element 52. Other workpiece-gripping capabilities, and another type of perimeter array of projecting teeth, are illustrated, as above mentioned, in Figs. 8-10, inclusive.

Please replace the paragraph beginning on page 13, line 18, and ending on page 14, line 3, with the following paragraph:

Figs. 14 and 15 illustrate at 86 what might be thought of as a bookfold kind of device made in accordance with the invention. The part in device 86 which corresponds to a planar body expanse is shown at 86a and this expanse faces another roughly matching-outline expanse 86b. Distributed along the perimeter edge of expanse 86a is edge structure including tooth-like projections 86c [86b]. This distribution of workpiece-engaging projection elements has an arrangement which is very much like that pictured for the device in Fig. 13. In other words, device 86 has a somewhat rectangular shape like the device pictured in Fig. 13.

In the Claims:

Please amend claims 1, 3, 7-9, inclusive, and 12-18, inclusive, as follows:

1. (Amended) A workpiece surface-gripping [workpiece-gripping] device joinable adjacent the outer end of an elongate, ribbon-like and generally nominally planar linear measuring tape comprising

a gripper body having a generally planar body expanse with perimeter structure which generally circumsurrounds said body expanse, said perimeter structure being formed with a row of plural, spaced, perimeter-distributed, workpiece surface-gripping [workpiece-gripping] projection elements adapted to contact and grip the far surface of a workpiece having a dimension which is being measured relative to that surface, and

mounting structure joined to said body expanse, and accommodating mounting of the device on such a tape at a location adjacent the tape's outer end, and in such a manner that different workpiece surface-gripping [workpiece-gripping] projection elements that are present in said row in said perimeter structure are operatively located on, and in spaced relation to, opposite sides of the tape's nominal plane, and with said elements generally extending toward the tape.

3. (Amended) The device of claim 1, wherein said body expanse has a perimeter structure which is generally polygonal, with plural, generally straight-linear runs [rims] that intersect at angles to form corners [curves].

7. (Amended) A workpiece surface-gripping [workpiece-gripping] device joinable adjacent the outer end of an elongate, ribbon-like and generally planar linear measuring tape comprising

a gripper body including plural, generally line-following, perimeter-distributed workpiece surface-engaging [workpiece-engaging] projection elements arranged generally in a kind of two-dimensional, long-path array, and

mounting structure joined to said body and accommodating mounting of the device on such a tape at a location adjacent the tape's outer end, and in a condition wherein projection elements in the body generally extend toward the tape, and are distributed generally in a laterally circumsurrounding fashion relative to the tape's long axis, and whereby workpiece surface gripping by said projection elements during use of the measuring tape can take place generally and selectively in substantially all longitudinally circumsurrounding regions near the tape's outer end.

8. (Amended) The device of claim 1 [7], wherein said body expanse is generally circular, said perimeter structure is generally annular, and said projection elements are tooth-like in configuration.

9. (Amended) The device of claim 1 [7], wherein said body expanse has a perimeter structure which is generally polygonal, with plural, generally straight-linear rims that intersect at angles to form corners [curves].

12. (Amended) A workpiece surface-gripping [workpiece-gripping] device removably joinable selectively adjacent the outer end of an elongate, ribbon-like, and generally planar linear measuring tape, said device comprising

a generally planar gripper body which has a perimeter [is] formed with plural, spaced, linearly-distributed, workpiece surface-gripping [workpiece-gripping] projection elements, and

snap-fit mounting structure joined to said body and adapted for fitting of the device onto such a tape, with the plane of the gripper body substantially paralleling the plane of the tape-end projection, and with said projection elements generally extending toward such a tape.

13. (Amended) A tape-measuring device comprising

an elongate, ribbon-like and generally nominally planar measuring tape having an exposed free end, and

a workpiece surface-gripping [gripping] device joined to said tape adjacent the tape's said free end, said surface-gripping device including

a gripper body having a generally planar body ^aexpanse with perimeter structure which generally circumsurrounds said body expanse, said perimeter structure being formed with a row of plural, spaced, perimeter-distributed workpiece surface-gripping [workpiece-gripping] projection elements, and

mounting structure joined to said body expanse, and directly mounting said surface-gripping device on said tape's free end in such a manner that different workpiece

surface-gripping [workpiece-gripping] elements that are present in said perimeter structure are operatively located on, and in spaced relation to, opposite sides of the tape's nominal plane, with these elements generally extending toward said tape.

14. (Amended) A workpiece surface-gripping [workpiece-gripping] device joinable adjacent the outer end of an elongate, ribbon-like and generally nominally planar, linear measuring tape, which tape includes a measurement-indicia side and a non-indicia side disposed on opposite sides of the tape's generally nominal plane, said device comprising

a gripper body including a row of plural, generally arcuate, linearly perimeter-distributed workpiece surface-engaging [workpiece-engaging] projection elements arranged generally in a kind of two-dimensional, long-path array, and

mounting structure joined to said body and accommodating mounting of the device as a whole on such a tape at a location adjacent the tape's outer end, and in a condition wherein the arcuate, linearly distributed projection elements generally extend toward the tape, and are deployed along a curved line which resides generally entirely on the non-indicia side of the tape relative to the tape's generally nominal plane.

15. (Amended) A workpiece surface-gripping [workpiece-gripping] device joinable adjacent the outer end of an elongate, ribbon-like and generally nominally planar linear measuring tape, which tape includes lateral edges, and a measurement-indicia side, and a non-indicia side disposed on opposite sides of the tape's generally nominal plane and each extending between said lateral edges, said device comprising

a gripper body including a row of plural, generally linearly perimeter-distributed workpiece surface-gripping [workpiece-engaging] projection elements arranged generally in at least two, spaced, arcuate linear arrays, and

mounting structure joined to said body and accommodating mounting of the device as a whole on such a tape at a location adjacent the tape's outer end, and in a condition wherein at least two arcuate arrays of projection elements straddle the tape's generally nominal plane in two, laterally-spaced regions which are located near the tape's lateral edges, with said elements generally extending toward the tape.

16. (Amended) A tape-measuring device comprising
an elongate, ribbon-like and generally nominally planar measuring tape having an exposed free end, and

a workpiece surface-gripping [gripping] device joined to said tape adjacent the tape's said free end, said surface-gripping device including

a gripper body including a row of plural, generally arcuate, linearly perimeter-distributed, workpiece surface-engaging [workpiece-engaging] projection elements arranged generally in a kind of two-dimensional, long-path array, and

mounting structure joined to said body, and directly mounting said surface-gripping [gripping] device on said tape's free end in such a manner that different surface [workpiece]-engaging elements that are present in said long-path array are operatively located on, and in spaced relation to, opposite sides of the tape's nominal plane, with these elements generally extending toward the tape.

17. (Amended) A workpiece surface-gripping [workpiece-gripping] device removably joinable selectively adjacent the outer end of an elongate, ribbon-like, and generally planar linear measuring tape of the kind having a lateral projection which extends one-sidedly, laterally and generally outwardly, in a plane which is disposed at an angle relative to the plane of the tape per se, said device comprising

a generally planar gripper body which is formed with a row of plural, spaced, perimeter-distributed, workpiece surface-gripping [workpiece-gripping] projection elements, and

snap-fit mounting structure joined to said body and adapted for removable snap-fitting of the device onto such a tape-end projection, with the plane of the gripper body substantially paralleling the plane of the tape-end projection, and with said projection elements generally extending toward such a tape.

18. (Amended) The device of claim 17, wherein said mounting structure includes a swing tab that, with the device mounted on such a tape, accommodates swiveling of the device about an axis which is generally normal to the plane [place] of the tape.